



# Agentic AI for Autonomous Data Operations



**Atos**

# Challenges

Modern enterprises rely heavily on data pipelines to power analytics, reporting, and AI-driven decision-making. However, data operations remain largely reactive, fragmented, and manual, leading to significant business risks.

Organizations face frequent pipeline failures and reconciliation issues, often caused by schema changes, data inconsistencies, or upstream system disruptions. These failures impact downstream systems, resulting in incorrect reports, delayed insights, and loss of business trust.

A key challenge is the lack of proactive monitoring and observability. Traditional monitoring systems generate alerts but lack intelligence to interpret them, leading to high volumes of tickets and manual triaging efforts resulting in increased operational overhead and reduced efficiency.

Organizations also struggle to leverage historical operational knowledge effectively, resulting in repeated incidents, duplicate troubleshooting efforts, and limited operational learning.

Data quality issues such as duplicates, missing values, and reconciliation gaps further degrade reliability. Combined with performance bottlenecks and unstable environments, these issues increase Mean Time to Resolution (MTTR) and create recurring incidents.

Additionally, most organizations rely heavily on manual processes, fragmented knowledge, and expert intervention to manage operational issues, making support models difficult to scale. The absence of intelligent automation for ticket enrichment, root cause analysis, testing, and validation results in recurring incidents, longer resolution cycles, higher operational costs, and missed optimization opportunities.

In summary, data operations today are:

- Reactive instead of proactive
- Manual instead of automated
- Fragmented instead of integrated
- Slow instead of intelligent

# Summary

**Transform your reactive data operations into autonomous, self-healing systems with Agentic AI. Our Agentic AI-powered Data Operations solution enables intelligent, always-on data reliability with embedded AI agents across monitoring, triage, and resolution workflows. Here's how.**



# Accelerate intelligent data operations with Agentic AI

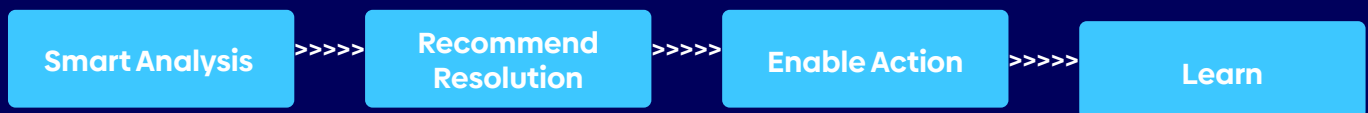
[Atos Polaris AI platform](#), Atos's Agentic AI-powered Data Operations solution empowers organizations with readily available, accurate, and trusted data for faster resolutions, quicker time-to-market and informed business decisions. Here's how.

## Autonomous data operations lifecycle

This solution creates a closed-loop, agent-driven lifecycle: monitor, analyze, decide, act, and learn. This lifecycle is powered by a coordinated set of intelligent agents, each responsible for specific stages of detection, analysis, resolution, and continuous improvement across data operations. It detects issues, triages and analyzes root causes, resolves failures, validates outcomes through human-in-the-loop governance, and learns continuously for ongoing optimization.

## Intelligent operations workflow

ADE orchestrates a structured decision-making process comprising:



This workflow enables the platform to:

- Enrich and classify tickets automatically
- Correlate operational events and data lineage information
- Identify probable root causes
- Recommend or execute remediation actions
- Capture insights for continuous operational improvement

# Key agent capabilities

An orchestrated set of intelligent agents enables continuous optimization across data operations as follows:



**Ticket Enrichment Agent** - Automatically creates incidents and enriches them with contextual metadata



**Root Cause Analysis Agent** - Analyzes patterns across logs, lineage, and historical data to identify root causes



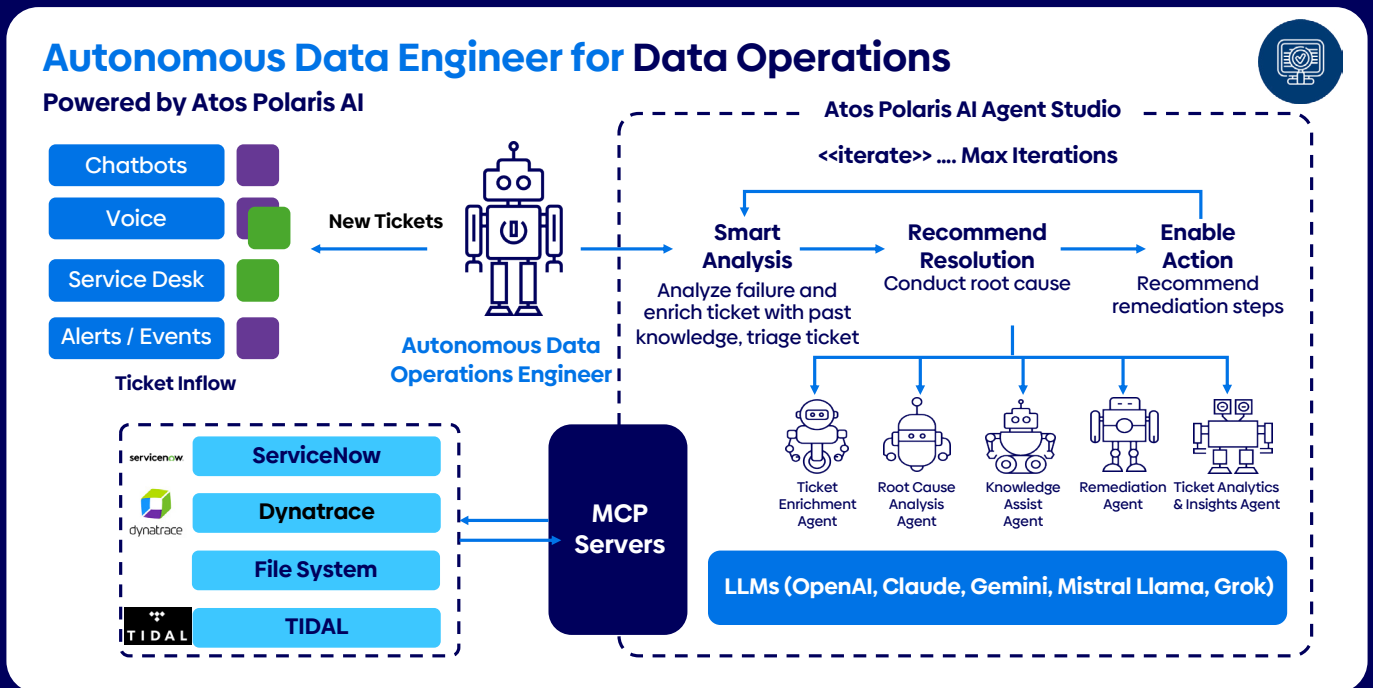
**Knowledge Assist Agent** - Uses historical ticket analytics, knowledge bases, and past resolutions to recommend context-aware fixes



**Remediation Agent** - Executes fixes such as reruns, script execution, or parameter corrections (with human-in-loop where required)



**Ticket Analytics & Insights Agent** - Identifies recurring incident patterns, tracks operational trends, and recommends efficiency improvements



By integrating intelligent autonomous operations with real-time decisioning across data operations, Atos transforms traditional data operations into self-healing, adaptive, and continuously optimized ecosystems.

With proven experience in managing large-scale data environments and deep expertise in automation and data platforms, Atos helps organizations move from reactive support models to intelligent, autonomous data operations, as demonstrated through successful transformations across financial technology company, insurance, and other data-intensive industries.

# The Atos advantage in Agentic Data Operations

Atos brings a unique combination of data operations expertise and agentic AI innovation to enable a shift from reactive support to autonomous operations.

- **Agentic AI Framework** - Goal-driven agents that not only automate but also decide, act, and learn
- **End-to-end data lifecycle coverage** - From ingestion to consumption, including quality, reconciliation, and reporting
- **Deep integration with enterprise ecosystem** - Seamless integration with tools like ServiceNow, observability platforms, and data systems
- **Reusable knowledge & continuous learning** - System improves over time using historical incidents and outcomes
- **Scalable across platforms** - A solution that works across Data Warehouses, Lakehouse and modern cloud ecosystems
- **Human-in-the-loop guardrails** - Strategic transition from supervised support to autonomous operations through strict policy controls and safety triggers.



# Business outcomes that matter

Adopt Atos's **Agentic AI-powered Data Operations** to harness the power of AI and your data for measurable gains in efficiency, reliability, and business outcomes.

**40–50%** productivity improvement

**30–40%** improvement in root cause analysis (RCA) accuracy

**20–30%** increase in first time-right resolution

**30–50%** reduction in operational effort and ticket volumes

Up to **99%** service availability and enhanced business continuity

**25–35%** improvement in data reliability and operational accuracy



## Agentic AI-powered Data Operations in action

### Client Story 1:

Improved operational efficiency, data reliability, and business performance for a financial technology company

#### Overview

A multinational financial technology company was facing significant operational challenges, including reactive job monitoring, lack of structured processes, and the absence of defined SLAs. This had led to inefficiencies, delays, and inconsistent reporting. By leveraging the 24x7 global data operations model from Atos, the Agentic AI-powered Data Operations solution introduced structured processes, proactive monitoring, and optimization strategies. Most importantly, it seamlessly supported and streamlined a large-scale big data environment with over 100+ petabytes of data.

#### Outcomes

**100 %** elimination of on-call support dependency

**20%** reduction in onboarding time for new applications

**99%** application uptime with SLA compliance

### Client Story 2:

Eliminating dependencies with autonomous insight-ready data foundations

#### Overview

A global life insurer was dependent on manual control for data foundations. It needed to modernize engineering across complex domains like claims and underwriting. The insurer partnered with Atos for implementation of an Agentic AI-driven orchestration layer that embedded AI agents directly into its operational workflows for automated ingestion, schema intelligence, and continuous security enforcement.

#### Outcomes

Autonomous, insight-ready data foundations

A seamless IT environment integration

Faster development of transformation pipelines



# Why Atos

Atos delivers next-generation Data Operations powered by Agentic AI, combining Autonomous Data Engineering (ADE) with the Polaris AI Agent Studio to enable self-driving data operations. Leveraging an intelligent agent lifecycle of monitor, analyze, decide, act, and learn, Atos embeds autonomous agents across monitoring, triage, resolution, validation, and continuous improvement processes. These agents proactively detect issues, perform root cause analysis, recommend or execute remediation, and continuously learn from operational outcomes.

By integrating intelligent autonomous operations with real-time decisioning across the data operations lifecycle, Atos transforms traditional support models into self-healing, adaptive, and continuously optimized ecosystems. With proven expertise in managing large-scale data environments and deep capabilities across AI, automation, observability, and data platforms, Atos helps organizations move beyond reactive operations to intelligent, autonomous, and business-aligned data operations.

- **Accelerate Operational Efficiency**

Reduce manual intervention, repetitive support activities, and operational overhead through intelligent automation and autonomous remediation.

- **Focus on Data Outcomes, Not Operations**

Enable engineering and business teams to prioritize innovation and value creation while ADE manages operational complexity.

- **Scale with Confidence**

Support growing data volumes, pipelines, and platform ecosystems without proportional increases in operational effort or support costs.

If you are ready to transform your data operations into an autonomous, intelligent engine, connect with our experts today. Partner with Atos to enable Agentic AI-driven Data Operations and unlock reliable, always-on data for your business. For any enquiry send mail to [DAI-Presales@atos.net](mailto:DAI-Presales@atos.net)



## About Atos Group

[Atos Group](#) is a global leader in digital transformation with c. 56,000 employees and annual revenue of c. €7.2 billion (at the go-forward perimeter), operating in 54 countries under two brands - Atos for services and Eviden for products and systems. European number one in cybersecurity and a leader in cloud, Atos Group is committed to a secure and decarbonized future and provides tailored AI-powered, end-to-end solutions for all industries. Atos Group is the brand under which Atos SE (Societas Europaea) operates. Atos SE listed on Euronext Paris.

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Let's start discussion together



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